Atia always had a passion for life sciences. In high school she always thought about going to medical school. She came to The City College of New York as a Pre-Med student. During her first semester, she learned about the newly developed department of Biomedical Engineering and decided to join it. “I joined Biomedical Engineering because it’s the only engineering department combining all sciences. Learning the engineering phenomenon and applying it to living organisms is very exciting. Engineering gives you all the right tools to bring your imagination to life.”

During her course work, Atia had a chance to join a Research Experience for Undergraduates program (REU) at the University of Buffalo (UB). The position required prior knowledge in bioinstrumentation and LabView™. Atia was very interested in learning LabView™ programming, which made it a desirable opportunity for her. She says: “Going to UB and taking the REU position at SEESL was one of the best decisions I ever made for my engineering career. The most interesting part of working at Buffalo was that I was working for an Earthquake Engineering Lab. Dealing with people with totally different backgrounds was a little overwhelming in the beginning, but I took it as a challenge.”

Atia worked on a project to calibrate the motion sensors. The Structural and Earthquake Engineering Simulation Lab (SEESL) had received a grant to improve their metrology practices. The project involved acquiring all necessary equipment, developing a setup and programming it using LabView™ and other software. “Programming has always been a little overwhelming for me; it requires a complete understanding of the system and a very clear view of your goal. As engineers, it is our job to deliver products and to produce a successful product; we must understand the needs of our customer. In this case, I had to make sure that I understood how SEESL has been using these motion sensors, how the developed calibration system would be used, and what are the common frequency ranges of ground motion. To answer all these questions, I had to do intensive research on ground motion. I read almost all the papers SEESL had published in the past ten years.”

This project helped Atia improve her research and writing skills. Meeting and dealing with people from different technical backgrounds also came as a challenge and helped Atia to polish her presentation skills. “This experience has boosted my confidence a lot. Now I think I can work in any field, all I have to do is to embrace the change and think with an open mind. Nothing is hard and of course nothing is impossible.”

During her stay at the University of Buffalo, Atia always had the support of the faculty and staff. “They understood that I was coming from a different background and went the extra mile to accommodate me. I never felt out of place at UB. My mentor and the Chairperson of the department, Professor Reinhorn, provided support, guidance, encouragement and instruction throughout the process. All in all it was a great experience.”